

**substance: boron compounds with group VIII elements**  
**property: properties of boron-ruthenium compounds**

**Ru<sub>7</sub>B<sub>3</sub>**

Crystalline structure [77L]

Structure: hexagonal

Space group: P6<sub>3</sub>

(Ru<sub>7</sub>B<sub>3</sub> is isostructural with M<sub>7</sub>C<sub>3</sub> carbides) The local environments of the boron atoms have the shape of trigonal prisms constituted of metal atoms [84K].

**lattice parameters**

<i>a</i>	7.4669(2) Å	<i>T</i> = 300 K	X-ray diffraction	84K
<i>c</i>	4.7141(2) Å			

**critical temperature of superconductivity**

<i>T<sub>c</sub></i>	2.58 K	91F, 61M
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**Ru<sub>11</sub>B<sub>8</sub>**

Crystalline structure [77L]

**Ru<sub>2</sub>B<sub>3</sub>**

Crystalline structure [77L]

**RuB<sub>2</sub>**

Semiconducting?; preparation [77C], crystalline structure [77L, 77C], electronic structure [77C]

**RuB<sub>1.1</sub>**

Crystalline structure [77L]

**melting point**

<i>T<sub>m</sub></i>	~1800 K	91M
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Formation enthalpy by high-temperature direct synthesis calorimetry [91M].

## References:

- 61M Matthias, B.T., Compton, V.B., Corenzwit, E.: J. Phys. Chem. Solids 19 (1961) 130.
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